

Determination of plasma nitric oxide, molitin and their significances in ulcerative colitis

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Abstract

AIM: To investigate the concentration changes of plasma nitric oxide (NO) and molitin (MTL) and the relationships between NO, MTL and ulcerative colitis (UC).

METHODS: The plasma concentration of nitrite/nitrate (stable end products of NO, standing for NO) and molitin of 18 patients with UC and 11 control subjects were respectively measured with Cadmium-reduction chromatography and development process (Greiss) and RIA (Radioimmuno assay). Evaluation was made using Student's *t* test for unpaired data and correlative analysis performed. $P < 0.05$

was considered significant statistically.

RESULTS: The concentration of plasma NO and MTL in control group were $21.34 \pm 5.86 \mu\text{mol/L}$, $348.42 \pm 124.32 \text{ ng/L}$; respectively whereas in UC group were $46.76 \pm 10.43 \mu\text{mol/L}$, $581.24 \pm 176.58 \text{ ng/L}$ respectively. The concentration of plasma NO and MTL in UC groups were significantly higher than those in controls ($P < 0.01$, $P < 0.05$, respectively). The concentration change of plasma NO in UC group significantly correlated with the change of MTL ($r = 0.482$, $P < 0.05$); there is no significant correlation in control group ($r = 0.376$, $P < 0.20$), however.

CONCLUSION: Nitric oxide and molitin are both involved in the pathophysiologic process of ulcerative colitis. Moreover, there may be some positive interactions between NO and MTL in the pathogenesis of UC.

Key words: Colitis, ulcerative/blood; Nitric oxide/blood; Motilin/blood; Radioimmuno assay

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